

## A Rubric for Assessing Evidence of Learning

Criteria	Deep Learning	Surface Learning	Non-Learning
<i>Nodes/Concepts Comparisons</i>	<input type="checkbox"/> Post-Map shows both new nodes (concepts introduced by the simulation & not on the pre-Map) & common nodes (prior concepts on the pre-Map)	<input type="checkbox"/> Post-Map shows significant number of new nodes (concepts introduced by the simulation & not on the pre-Map) & fewer common nodes than are on the pre-Map	<input type="checkbox"/> Post-Map shows significant number of common nodes (prior concepts that persist from the pre-Map) & very few-- or an absence of-- new nodes
<i>Interconnectedness</i>	<input type="checkbox"/> All concepts are interlinked with several other concepts on the post-Map	<input type="checkbox"/> New nodes are not interlinked with common nodes on the post-Map	<input type="checkbox"/> Linkage remains the same from pre- to post-Map
<i>Use of Descriptive Links</i>	<input type="checkbox"/> Linking statements (propositions) are valid & explanatory & provide evidence of meaning in the mind of the team	<input type="checkbox"/> Explanatory power of linking statements (propositions) on the post-Map are not a significant improvement over the pre-Map	<input type="checkbox"/> An absence of newly developed linking statements (propositions) on the post-Map
<i>Levels Reach</i>	<input type="checkbox"/> Levels added and level entries (nodes) reorganized from pre- to post-Map	<input type="checkbox"/> Although new nodes occur, the levels as whole are not increased on the post-Map	<input type="checkbox"/> Levels and level entries are not significantly reorganized from the pre-Map to the post-Map
<i>Development Over Time</i>	<input type="checkbox"/> Post-Map shows considerable cognitive progression from the pre-Map & a significantly greater depth of understanding of the poverty domain	<input type="checkbox"/> Post-Map shows minimal cognitive progression from the pre-Map & a slightly greater depth of understanding of the poverty domain	<input type="checkbox"/> Post-Map shows no significant cognitive progression from the pre-Map & no increase in the understanding of the poverty domain

Adapted from Hay, D. B. (2007). Using concept maps to measure deep, surface and non-learning outcomes. *Studies in Higher Education*, 32(1): 39-57; and Josephine McMurray, while a research associate at the University of Waterloo, Rubric of assessing concept maps, a less “mechanical” approach at Centre for Teaching Excellence at <https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/assessing-student-work/grading-and-feedback/rubric-assessing-concept-maps>